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I. Introduction and summary

A. Introduction

1. For Hungary, the Convention entered into force on 25 May 1994. Under the Convention, Hungary, as a member State of the European Union (EU), made a commitment to contribute to the joint EU economy-wide emission reduction target of reducing its greenhouse gas (GHG) emissions by 20.0 per cent by 2020 below the 1990 level.

2. This report covers the in-country technical review of the first biennial report (BRI) of Hungary, coordinated by the secretariat, in accordance with the "Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention" (decision 23/CP.19).

3. The review took place from 23 to 28 June 2014 in Budapest, Hungary, and was conducted by the following team of nominated experts from the UNFCCC roster of experts: Mr. Liviu Gheorghe (Romania), Mr. Justin Goodwin (United Kingdom of Great Britain and Northern Ireland) and Ms. Maria Gutierrez (Mexico) and Ms. Yi'e Li (China). Mr. Goodwin and Ms. Gutierrez were the lead reviewers. The review was coordinated by Ms. Inkar Kadyrzhanova (secretariat).

4. During the review, the expert review team (ERT) reviewed each section of the BRI.

5. In accordance with decision 23/CP.19, a draft version of this report was communicated to the Government of Hungary, which provided comments that were considered and incorporated, as appropriate, into this final version of the report.

B. Summary

6. The ERT conducted a technical review of the information reported in the BRI of Hungary according to the "UNFCCC biennial reporting guidelines for developed country Parties" (hereinafter referred to as the UNFCCC reporting guidelines on BRs). During the review, Hungary provided further relevant information.

1. Completeness and transparency of reporting

7. Gaps and issues related to the reported information identified by the ERT are presented in table I below.

2. Timeliness

8. The BRI was submitted on 8 January 2014, one week after the deadline of 1 January 2014 mandated by decision 2/CP.17. The common tabular format (CTF) tables were submitted on 7 January 2014. The ERT noted the delay in the submission of the BRI and CTF tables.

¹ The biennial report submission comprises the text of the report and the common tabular format (CTF) tables. Both the text and the CTF tables have been subject to the technical review.

3. Adherence to the reporting guidelines

9. The information reported by Hungary in its BRI is mostly in adherence to the UNFCCC reporting guidelines on BRs as per decision 2/CP.17 (see table 1).

Table 1

Summary of completeness and transparency issues of reported information in the first biennial report of Hungary

Key information reported	Completeness	Transparency	Reference to paragraph
Greenhouse gas emissions and trends	Complete	Transparent	
Assumptions, conditions and methodologies related to the attainment of the quantified economy-wide emission reduction target	Complete	Transparent	
Progress in achievement of targets	Mostly complete	Transparent	20, 24
Projections	Mostly complete	Transparent	35
Provision of support to developing country Parties ¹	NA	NA	

¹Abbreviation: NA – not applicable

A list of recommendations pertaining to the completeness and transparency issues identified in this table is included in the chapter on conclusions and recommendations.

Hungary is not a Party included in Annex II to the Convention and is therefore not obliged to adopt measures and fulfil obligations as defined in Article 4, paragraphs 3, 5, of the Convention.

II. Technical review of the reported information

A. All greenhouse gas emissions and removals related to the quantified economy-wide emission reduction target

10. Hungary has provided a summary of information on GHG emission trends for the period 1990–2011 in its BRI and CTF table 1. This information is broadly consistent with the 2013 national GHG inventory submission. During the review, it was explained by the Party that there are differences in information reported on emission trends in the inventory submission and in the BRI, which are a consequence of the review of the 2013 annual submission. The additional information provided contributes to enhancing the transparency of reporting. The ERT encourages Hungary to provide explanations for such observed inconsistencies as appropriate in the text of its next biennial report. To reflect the most recently available data, version 2.1 of the 2014 annual inventory data has been used as the basis for discussion in this report.

11. Total GHG emissions² excluding emissions and removals from land use, land-use change and forestry (LULUCF) decreased by 36.2 per cent between 1990 and 2012, whereas total GHG emissions including net emissions or removals from LULUCF decreased by 39.5 per cent over the same period. The decrease of GHG emissions is due to the transition from a centralized to a market economy, which resulted in a decrease of activity in energy, industry and agriculture and a significant drop in energy consumption.

²In this report, the term “total GHG emissions” refers to the aggregated national GHG emissions expressed in terms of carbon dioxide equivalent excluding land use, land use change and forestry, unless otherwise specified.

12. Carbon dioxide (CO₂) emissions (accounting for the share of 72.2 per cent of total GHG emissions in 2012) have decreased by 46.2 per cent since the base year. Methane (CH₄) emissions (13.9 per cent of total GHG emissions) decreased by 36.7 per cent compared to the base year. Nitrous oxide (N₂O) emissions (11.8 per cent in the total GHG emissions) are 60.2 per cent lower compared to the base year. In 2012, emissions of fluorinated gases (F-gases) contributed 2.0 per cent to total.

13. The main driver of GHG emissions was the economic downturn and the change in the structure of the economy resulting from the transition from centralized to market economy in Hungary. GHG emissions increased by more than three times since the base year by 2008, but the emission level has remained almost constant since 2008. Further information on the review of emissions and emission trends is provided in chapter II.A of the report of the technical review of the sixth national communication (TDR/NC6).

B. Assumptions, conditions and methodologies related to the attainment of the quantified economy-wide emission reduction target

14. In its BR1 and CTE tables 2, Hungary reported a description of its quantified economy-wide emission reduction target, referred to henceforth as the target, including its associated conditions and assumptions.

15. Under the Convention, Hungary is committed to contribute to the EU quantified economy-wide emission reduction target to achieve a 20.0 per cent reduction in emissions by 2020 compared with the 1990 (base year) level. The target for the EU and its member States is formalized in the EU's 2020 climate and energy package. This includes the European Union Emissions Trading System (EU ETS) and the effort-sharing decision (ESD). This legislative package regulates emissions of CO₂, CH₄, N₂O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆) using global warming potential (GWP) values from the Fourth Assessment Report¹ of the Intergovernmental Panel on Climate Change (AR4) to aggregate EU GHG emissions up to 2020. The target covers the energy, transport, industrial processes, agriculture and waste sectors, and excludes LULUCF. The use of the market-based mechanisms under the Convention is not foreseen.

16. Under the ESD (EU decision 406/2009/EC), Hungary has a target of 10.0 per cent increase of emissions by 2020 compared with 2005 for emissions from sectors covered by the EU ETS. The ESD also includes binding renewable energy goals (13.0 per cent share) and non-binding energy efficiency (9.0 per cent energy savings) goals for Hungary (see para. 29 below).

17. In its NC6 BR1, Hungary did not include information regarding its plans to achieve the emission reduction target for non-ETS sectors. The Party's renewable energy sources and energy efficiency targets by 2020 were mentioned in the sixth national communication (NC6), but the explanation on the linkages between these targets and the overall EU 2020 target or to the associated PaMs implemented to achieve these targets was not clear. During the review, the Party provided information regarding its country-specific targets (such as the renewable energy sources target or non-ETS targets) and how they relate to the overall 2020 target under the Convention for the EU. It also further elaborated on the PaMs implemented to achieve the targets, including PaMs identified in its National Energy

¹ The quantified economy-wide emission reduction target by Hungary is expressed using the global warming potential values from the Fourth Assessment Report (AR4) of the Intergovernmental Panel on Climate Change, while emission levels are assessed using the values from the AR4 as per the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual greenhouse gas inventories".

Efficiency Action Plan and National Renewable Energy Action Plan. In order to increase transparency, the ERT encourages Hungary to consider including such information in its next biennial report.

18. The information regarding the current and the projected level of emissions provided in the BR1 and in the NC6, as well as through the presentations during the review, give confidence that Hungary will achieve its targets for 2020 under the Convention.

C. Progress made towards the achievement of the quantified economy-wide emission reduction target

19. In its BR1 and CTF tables 3 and 4, Hungary reported information on its mitigation actions implemented and planned since its fifth national communication (NC5) to achieve its target. No use of market-based mechanisms and LULUCF is foreseen by Hungary to meet its 2020 target.

20. Some information was missing from CTF table 3, including the implementing entity for some PaMs and an estimate of mitigation impacts for agricultural and some forestry PaMs. Some CTF tables (i.e. CTF table 4(b)) are not filled in. The ERT recommends that Hungary improve the completeness and transparency of its next biennial report, by filling in CTF tables 3 and 4, as appropriate, or by using custom footnotes provided under the CTF tables to explain the reasons for not reporting information in these tables.

21. The ERT reviewed the reported information and provided its assessment of progress made towards achieving the target. The ERT noted significant progress made by Hungary with respect to the implementation of its PaMs, especially on promotion of energy efficiency in buildings and the use of renewable energy sources.

22. Across the EU, it is expected that the market mechanism of the EU ETS will guarantee that emissions from sectors under this scheme (mainly large point sources such as power plants and industrial facilities) will achieve the 2020 target of 21.0 per cent below the 2005 level. Under the EU ESD, Hungary has to limit the growth of its emissions from sectors not covered under the EU ETS to 10.0 per cent above the 2005 level by 2020. In absolute terms, this means that Hungary has to limit emission growth under the EU ESD from 51,707.00 kt CO₂ eq (2005) to 56,877.70 kt CO₂ eq in 2020. In 2012, emissions from sectors not covered by the EU ETS were at about 42,400.00 kt CO₂ eq, or 18.0 per cent below the 2005 level. The emission projections provided in the NC6/BR1 do not differentiate between the EU ETS and non-ETS sectors. In order to facilitate the assessment of the progress of the Party towards achieving its target for the non-ETS sectors by 2020 (10.0 per cent), the ERT encourages Hungary to provide emission projections for the EU ETS and non-ETS sectors separately in its next national communication/biennial report.

23. Considering the existing and planned PaMs as well as the decreasing emissions trend over the reported period, the ERT indicates that Hungary is likely to meet its targets for 2020. Hungary has reported projections for 2020 and 2025 and it can be noticed that the decreasing trend of emissions continues under both the 'with existing measures' (WEM) and 'with additional measures' (WAM) scenarios.

I. Mitigation actions and their effects

24. Hungary has provided in its BR1 well-organized information on its package of mitigation actions introduced to achieve its target. The BR1 provided information on mitigation actions organized by sector and by gas. A detailed review of the reported information is provided in chapter II.B of the IDR/NC6. The ERT encourages Hungary to provide further information on the implementing entity and quantified measures for all PaMs as appropriate in its next BR. The ERT also recommends that Hungary include PaMs

for industrial processes, including F-gases, in its next biennial report and to complete the details on its implementing entity and mitigation impact estimates for all PaMs as far as possible.

25. Hungary's PaMs provide opportunity to further reduce declining emissions observed at the end of the 2000s. The key framework for climate and energy policy is the First National Climate Change Strategy (NCCS) for 2008-2025, which is set to ensure the implementation of its national target of emission reductions by 16-25 per cent by 2025 below 1990 levels. This strategy was revised in 2013. The review of the First NCCS provided insights and recommendations that informed the design of the Second NCCS, which has been developed in parallel to the submission of the NC6. The Second NCCS incorporates the Decarbonisation Roadmap (which is linked to the Hungarian Long-Term Energy Strategy), the National Adaptation Strategy and plans for awareness-raising, communications and public opinion activities.

26. Hungary provided details of how it monitors its progress in policy implementation during the review. The State Secretariat of Development, Climate Policy and Key Public Services of the Ministry of National Development, through the First NCCS and the Second NCCS, monitors and evaluates the progress and success of PaMs and prioritizes them.

27. During the review, Hungary also elaborated on its priorities for green technologies and the links between the Programme for National Development and the First NCCS. According to Hungary, its programmes for building improvement (refurbishment and new buildings), supported by the Green Investment Scheme (GIS) and the New Szechenyi Plan, have been identified as the most successful PaMs. The GIS and the New Szechenyi Plan are the two key schemes to provide investments for mitigation actions. During the review, Hungary provided further details on the GIS, its progress and verification systems.

28. During the review, Hungary explained that its key overarching cross-sectoral PaMs within the EU climate and energy package are the EU ETS and the EU ESD. In operation since 2005, the EU ETS is a cap-and-trade system that covers all significant energy-intensive installations, which produce 40-45 per cent of the GHG emissions of the EU. The third phase of the EU ETS started in 2013 and now covers aircraft operations (2012) as well as NO_x emissions from chemical industries, PFC emissions from aluminium production and CO₂ emissions from industrial processes (2013). The aim of the EU ETS is to decrease GHG emissions from the covered sectors (EU ETS sectors) by 21.0 per cent below the 2005 level by 2020 based on a yearly reduction equal to 1.74 per cent of the average allocation in the period 2008-2012, extrapolated starting in 2010.

29. The ESD became operational in 2013 and covers sectors not covered by the EU ETS (non-ETS sectors), including transport (excluding aviation and international maritime transport), residential and commercial buildings, agriculture, waste and other sectors, together accounting for 55-60 per cent of the GHG emissions of the EU. The aim of ESD is to decrease GHG emissions from the non-ETS sectors by 10.0 per cent below the 2005 level by 2020. It includes annual binding targets for 2013-2020, which are underpinned by the national policies and actions of the EU member States.

30. During the review, in response to questions from the ERT, Hungary provided further information on its policy framework and its implementation of the EU-wide programmes. Hungary elaborated on the Hungarian targets under the ESD by 2020, and projections and the likely sectors that will deliver reductions. Hungary highlighted that, as the first performance review of the ESD will be in 2015, it is still uncertain how the system will operate and how targets will be met.

31. The ERT assessed the Party's ongoing and planned PaMs and their estimated impact. The assessment was based on CTF table 3, assisted by the text of the NC6/BR1. The estimated total effect of PaMs in 2020 is 23,237.98 kt CO₂ eq, or 23.8 per cent of the

1990 emissions. According to that information and the projections discussed in chapter II.C above, the ongoing and planned PaMs and their estimated impacts are sufficient for the Party to achieve its 2020 target. Table 2 provides a concise summary of the key mitigation actions implemented by Hungary to achieve its target.

Table 2
Summary of information on mitigation actions reported by Hungary

<i>Actions reported</i>	<i>Estimated impact (kt CO₂ eq)</i>
Policy framework and cross-cutting measures	
First and Second National Climate Change Strategies	NA
European Union climate and energy package	NA
Energy	
Energy supply	
Promotion of nuclear power	7 800.00
Renewable energy	
Promotion of renewables	8 821.20
Renewable public institutions subprogramme	722.10
Energy efficiency	
Reduction of power demand from public institutions	972.80
District heating efficiency subprogramme	242.00
Reducing the energy use of enterprises	1 477.60
Horizontal measures	336.70
Residential and commercial sectors	
Flexible panel buildings subprogramme	953.50
Smart home reconstruction subprogramme	844.40
Power saving households programme	1 117.10
Transport	
Reducing the energy demand of cargo and passenger transport	98.20
Directing transport to railways	80.60
Directing transport to public transport and developing public transport	52.40
Reducing road transport emissions	1 549.70
Agriculture	
Climate protection by efficient manure management and biogas use	NA
Partial change of nitrogen fertilizer utilization and cultivations change	NA
Support for perennial herbaceous energy plantation by the European Agricultural Fund	NA
Rural development for sustainable and modern agriculture	NA
Reduction of nitrate contamination of water	NA
Forestry	
National forest programme for increasing forest area	700.00
Framework for forestry management and forest protection	NA
Waste management	
Governmental regulation on packaging waste	23.08
Budapest municipal door-to-door selective waste collection	20.77
Landfill recultivation and recovery	4.62
Prevention of waste generation	9.23

Source (the EU)	Cost of the measures (millions of EUR)	Summary of measures (millions of EUR)
	Waste landfilling tax	73.85
	New waste management instruments	4.62
	Setting up regional waste management projects	20.77

Note: The greenhouse gas reduction estimates given for some measures (in parentheses) are reductions in carbon dioxide or carbon dioxide equivalent for 2020.

Abbreviation: N/A = not applicable.

32. In its BRT, Hungary provided information on changes in its domestic institutional, legal, administrative and procedural arrangements, including those used for domestic compliance, monitoring, reporting, archiving of information and evaluation of the progress towards its target. Changes include appointment of the Hungarian Meteorological Service for the compilation of the GHG inventory, and structural changes in the government with retaining and reassignment of departments and duties, with the Ministry of National Development being responsible for energy policy, the climate change policy, and acting as the UNFCCC focal point.

33. Hungary did not provide in the BRT information on the assessment of the economic and social consequences of response measures. This information was presented during the review, when Hungary explained that this assessment was taken up by the EU as part of its negotiations. In the EU, a wide-ranging impact assessment system accompanying all new policy initiatives has been established. It is based on an integrated approach, which analyses both benefits and costs and addresses all significant economic, social and environmental impacts of possible new initiatives. The ERT encourages Hungary to report in its next biennial report, to the extent possible, detailed information on the assessment of the economic and social consequences of response measures.

2. Estimates of emission reductions and removals and the use of units from the market-based mechanisms and land use, land-use change and forestry

34. Hungary reported in its BRT that it is not planning to use market-based mechanisms under the Convention and other mechanisms to achieve its target. Hungary reported on the contribution from LULUCF to achieve its target in its BRT and CTI tables 4, and on its exclusion of the LULUCF contribution from its progress to its target in its BRT. Table 3 below illustrates how Hungary reported on the use of units from market-based mechanisms and LULUCF to achieve its target.

Table 3

Summary information on the use of units from the market-based mechanisms and land use, land-use change and forestry as part of the reporting on the progress made towards achievement of the target by Hungary

Year	Emissions, including LULUCF (Gt CO ₂ e)	LULUCF		Total (all units from the Convention and other mechanisms)	
		Removals (Gt CO ₂ e)	Net emissions (Gt CO ₂ e)	Removals (Gt CO ₂ e)	Net emissions (Gt CO ₂ e)
Base year	115 397.15	NA	NA	NA	NA
1990	97 602.80	1 966.85	95 635.94	NA	NA
2010	63 677.97	3 938.73	63 690.23	NA	NA
2011	66 034.09	3 641.90	62 392.19	NA	NA
2012	61 980.66	4 407.11	57 573.55	NA	NA

Abbreviations: LULUCF = land use, land-use change and forestry; NA = not applicable.

¹ Emissions and removals for 1990 shall be reported, if a base year other than 1990 is used.

In common tabular format (CT) table 4, Hungary reported a contribution from the EUECT sector of 4,783.71 kt carbon dioxide equivalent (CO₂-eq) in 2010 and 2,787.48 kt CO₂-eq in 2011 as part of information on progress towards the target. The expert review team included values from the 2014 annual submission, version 2.1, in the table above as Hungary is a member State of the European Union, which has an unconditional commitment to reduce greenhouse gas emissions by 20 per cent by 2020 compared with 1990 that does not include emissions removed from EUECT.

In CT table 4, Hungary reported 'N/A' (not estimated) for units that it intends to use to achieve the target.

3. Projections

35. Hungary has provided in its BR1 and CT1 tables 5 and 6 well-organized information on its updated projections for 2020 and 2025 but it did not report emission projections for 2030. During the review, Hungary provided the preliminary estimates of the 2030 emission projections. The ERT recommends that Hungary report emission projections for 2030 in its next BR. A detailed review of the reported information is provided in chapter IIC of the IOR NC6.

36. The information provided in CT1 table 6 is almost the same as in the NC6 and it was explained to the ERT during the review that the differences in total GHG emissions (0.1 per cent) are due to the fact that the projections were copied from the EU tables to arrive to the sectoral breakdown. The ERT considered Hungary's explanation is reasonable and the differences very small. The ERT encourages Hungary to make every effort to report consistent information in its next NC BR.

37. In its BR1, Hungary did not provide detailed information on the changes since the previous national communication in the methodologies used for the preparation of projections; however, during the review, Hungary explained that for the previous national communication it used mostly the H-NMII model, while for the NC6 it has used harmonized assumptions (GDP growth, population growth, carbon value, energy prices) and different models for projections in the electricity and heating sectors (EEM model), buildings (REKK building model), industrial emissions (econometric model), transport (econometric model), agriculture and EUECT (CASMOFOR), and for other sectors it has used trend estimations and expert evaluations. The supplementary information provided during the review illustrates the efforts made by the Party to improve its reporting and bring more transparency and completeness.

38. The ERT noted information reported by Hungary on projected emission trends by 2020. The emission projections provided by Hungary indicate that emissions by 2020 are expected to be 59,840.24 kt CO₂-eq under the WEM scenario (or 58.7 per cent below the 1990 level) and 56,774.20 kt CO₂-eq under the WAM scenario (or 41.8 per cent below the 1990 level). The projected emission levels are significantly below the Party's emission reduction target for the non-EIS sectors of a 100 per cent increase by 2020 above the 2005 level, and below the EU joint quantified economy-wide emission reduction target of a 20 per cent emission reduction by 2020 compared with the 1990 level.

39. For the longer-term perspective, the projections show that emissions by 2025 are expected to reach the level of 58,598.03 kt CO₂-eq under the WEM scenario (or 40.0 per cent below the 1990 level) and 55,400.29 kt CO₂-eq under the WAM scenario (or 43.2 per cent below the 1990 level).

D. Provision of financial, technological and capacity-building support to developing country Parties

1. Provision of financial support to developing country Parties

40. As Hungary is not included in Annex II to the Convention, the Party is not required to provide information on its provision of support to developing country Parties in its BRT. However, Hungary reported information on provision of financial, technological and capacity-building support required under the Convention in textual format and in CTT tables 7a, 7(b) and 7(b). The ERT recognized and welcomed that the Party reported the provision of climate change related financial resources through multilateral channels (such as the Least Developed Countries Fund) and bilateral channels as fast-start finance. The ERT noted that in its BRT Hungary reported information on its domestic financial sector and banking system and the limited role played by the two specialized state-owned banks at the international level.

41. Hungary provided financial assistance in terms of official development assistance (ODA) to developing countries allocated through multilateral and bilateral channels. The contribution of ODA has increased steadily over the reported period to fulfil commitments of Hungary as a member State of the EU and the Organisation for Economic Co-operation and Development.

42. In its BRT, Hungary did not provide details on what "new and additional" financial resources it has provided. During the review, Hungary provided additional information on ODA allocation by support areas and recipient countries during 2008–2011. Hungary also provided additional information to elaborate on the provision of support for adaptation in developing countries. Table 4 includes some of the information reported by Hungary on its provision of financial support.

Table 4
Summary of information on provision of financial support in 2011–2012

(United States dollars)

Provision of financial support to developing countries	2011–2012	
	2011	2012
Official development assistance	130.75	118.38
Climate-specific contributions through multilateral channels	113.73	86.00
Climate-specific contributions through bilateral, regional and other channels	26.00	32.32
Fast-start finance	1.30	0.75

43. The Party reported information on foreign-owned, private-owned and state-owned banks and their capabilities to participate in international development activities. The ERT encourages Hungary to focus in its next biennial report on the provision of financial support to developing country Parties by the Hungarian public and private sectors.

2. Approach used to tracking support provided

44. In its BRT, Hungary did not provide information on its approach to tracking support provided.

3. Technology development and transfer

45. In its BRT, Hungary has provided brief information on activities related to international development assistance projects in developing countries, which have been carried out by the private sector. No information was provided in CTF table 8.

46. During the review, Hungary provided a summary of the draft International Development and Cooperation Strategy up to 2020, in which additional information was presented on prioritized sectors for transfer of know-how, skills, technology and knowledge to developing countries.

4. Capacity-building

47. In its BRT, Hungary has provided only limited information on capacity-building support provided mostly through scholarship programmes, and private sector projects in education and healthcare sectors. No information was provided in CTF table 9. Hungary reported in its BRT on the tied aid provided in line with the Hungarian international development policy and the role of the domestic cluster development in overcoming limitations related to capacity. The ERT noted the information provided.

III. Conclusions

48. The ERT conducted a technical review of the information reported in the BRT and CTF tables of Hungary, in accordance with the UNFCCC reporting guidelines on BRTs. The ERT concludes that the BRT and CTF tables provide a good overview of information on emissions and removals related to the quantified economy-wide emission reduction target, a description of the target, progress made by Hungary to achieve its targets under the Convention, and some information on the provision of support to developing country Parties. During the review, Hungary provided additional information on progress in the implementation of the PaMs in the energy sector and the GDS operation in Hungary.

49. Hungary's emissions and removals related to the target were estimated for 2012 to be 45.8 per cent below its base year level excluding LULUCF and 48.5 per cent below including LULUCF. Emission decreases were driven by a strong decline in economic activity due to the transition to a market economy, which lead to a considerable decline of activity in energy, industry and agriculture.

50. Under the Convention, Hungary is committed to achieving the EU quantified economy-wide emission reduction target of a 20.0 per cent reduction in emissions by 2020 compared with the 1990 (base year) level. The target for the EU and its member States is formalized in the EU's 2020 climate and energy package. This includes the EU ETS and the ESD. This legislative package regulates emissions of CO₂, CH₄, N₂O, HFCs, PFCs and SF₆ using GWP values from the Fourth Assessment Report of the IPCC to aggregate EU GHG emissions up to 2020. The target covers the energy, transport, industrial processes, agriculture and waste sectors. In line with the EU approach to its target, emissions or removals from the LULUCF sector are not included and Hungary does not plan to use market-based mechanisms under the Convention.

51. Among the key PaMs in the EU climate and energy package are the EU ETS and the ESD. Under the ESD, Hungary has a 10.0 per cent target to limit the emissions growth by 2020 compared with 2005. The ESD also includes binding renewable energy targets and non-binding energy efficiency targets for each member State. Hungary's major PaMs to achieve this 10.0 per cent target include its measures to promote the use of renewable energy sources, energy efficiency improvements and increase in the use of biofuels. PaMs in residential sector, financed through the GDS programme and the New Széchenyi Plan, are

the most successful PaMs based on progress in implementation, progress potential and savings. In absolute terms, achieving the 10.0 per cent target means that Hungary has to limit its emissions growth under the ESD from 41,767,000 t CO₂ eq (2005 to 2020) to 36,877,000 t CO₂ eq by 2020. In 2012, emissions from sectors not covered by the EU ETS amount about 42,406,000 t CO₂ eq, or 18.0 per cent below the 2005 level.

52. In addition to the EU policies, the key national framework climate and energy policy is the First NCCS for 2008–2025, which is set to ensure the implementation of Hungary's national target of emissions reductions by 2025 set with the 2025 below 1990 levels. This strategy has been superseded in 2015 by the Second NCCS, which represents an overarching document incorporating the Decarbonisation Roadmap, the National Adaptation Strategy and plans for awareness-raising, communication and public opinion-survey activities.

53. Hungary reported three projection scenarios: WOM scenario, WEM and WAM. The projected emissions by 2020 under the Facilitative WEM and WAM scenarios are 32.4 per cent, 38.7 per cent and 41.8 per cent, respectively, below the 1990 level. The projections indicate that Hungary can contribute to achieving the EU target under the second commitment period of the Kyoto Protocol, which is a 20 per cent emission reduction compared with the 1990 level, even under the baseline scenario. GHG emissions of Hungary are not expected to exceed the Kyoto Protocol target until by 2020. Based on the comparison of the Kyoto Protocol target for the first commitment period 10.0 per cent reduction and the average annual emissions for 2008–2012, Hungary is in a position to meet its Kyoto Protocol target.

54. As Hungary is not included in Annex II to the Convention, the Party is not required to provide information on its provision of support to developing country Parties in its RRT. However, Hungary reported information on the provision of financial support required under the Convention in textual format and in CTE tables 7, 7(a) and 7(b). Hungary reported brief information on activities related to transfer of technology, which have been carried out by the private sector, and limited information on capacity-building support provided mostly through scholarship programmes, and projects in the education and healthcare sectors.

55. In the course of the review, the ERT formulated several recommendations relating to the completeness of Hungary's reporting under the Convention. The key recommendations are that Hungary improve the completeness of reporting by including in the next annual report the following information:

- (a) Information on progress made towards achieving its target by filling in CTE tables 3 and 4, as appropriate, or by using custom footnotes provided under the CTE tables to explain the reasons for not reporting information in these tables (see para. 20 above);
- (b) Information on PaMs implemented by sector, as appropriate, including PaMs (e.g. on F-gases) addressing emissions from the industrial processes sector (see para. 24 above);
- (c) Emission projections for 2030 (see para. 35 above).

* The recommendations are given in full in the relevant sections of this report.

Annex

Documents and information used during the review

A. Reference documents

"3. NFCCC biennial reporting guidelines for developed country Parties". Annex to decision 24/CP.17. Available at: <http://unfccc.int/resource/docs/2011/copl7/eng/09a01.pdf#page=4>.

"Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention". Annex to decision 23/CP.19. Available at: <http://unfccc.int/resource/docs/2013/copl9/eng/10a02.pdf#page=20>.

EUCCC ARR 2012/HU-N. Report of the individual review of the annual submission of Hungary submitted in 2012. Available at: <http://unfccc.int/resource/docs/2013/arr-hum.pdf>.

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First biennial report of Hungary. Available at: [http://unfccc.int/files/national_reports/annex_1_natcom/submitted_natcom/application/pdf/bienn-final_hun\[1\].pdf](http://unfccc.int/files/national_reports/annex_1_natcom/submitted_natcom/application/pdf/bienn-final_hun[1].pdf).

Common tabular format tables of Hungary. Available at: http://unfccc.int/files/national_reports/biennial_reports_and_nir/submitted_biennial_report/application/pdf/hun_2014_v3.0.pdf.

2013 GHG inventory submission of Hungary. Available at: http://unfccc.int/national_reports/annex_1_ghg_inventories/national_inventories_submissions/items/7383.php.

2014 GHG inventory submission of Hungary. Available at: http://unfccc.int/national_reports/annex_1_ghg_inventories/national_inventories_submissions/items/8108.php.

B. Additional information provided by the Party

Responses to questions during the review were received from Ms. Andr  a Vigh (Ministry of National Development), including additional material on updated policies and

measures, greenhouse gas projections, the national energy and recent climate policy developments in Hungary. The following documents were also provided by Hungary:

Green Investment Scheme Summary report 2013. Elaborated by: EMM Newspin (H) Limited Liability Company for Quality Control and Innovation in Building, 2013. Dr. K. Sarkány, B. Róthlyi.

Hungary's Renewable Energy Utilization Action Plan on trends of the use of renewable energy sources until 2020. Available at: http://ec.europa.eu/energy/renewables/action_plan_en.htm

National Energy Strategy 2030. Ministry of National Development 2012. Available at: <http://2010->

2014/kormany-hu/download/7-d7-70000/Hungarian%20Energy%20Strategy%202030.pdf

Regional Policy of European Union, Hungary, Operational Programmes 'Economic Development', 'Electronic Public Administration', 'Energy and Environment', 'Implementation', 'Social Infrastructure' and 'Transport'. Available at: <http://www.szecheny2020.hu/hung-en>